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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Greene, et al.
Serial No. 08/425,766
Filing Date: April 19, 1995
Examiner: Tinker, S.
Group: 3404
Title: METHOD AND APPARATUS FOR DISPOSING OF
WASTE MATERIAL

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BOARD OF PATENT APPEALS
AND INTERFERENCES
1999 SEP 1 PM 2:35

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Group 3700

Assistant Commissioner
for Patents
Washington, D.C. 20231

Dear Sir:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date shown below.

Mary J. Slattery
Name

8/30/99

Date of Signature

APPEAL BRIEF

Applicants appeal to the Board of Patent Appeals and Interferences from the decision of the Examiner mailed March 30, 1999, finally rejecting Claims 1-20. Applicants filed a Notice of Appeal on June 30, 1999. Applicants respectfully submit herewith their brief on appeal, in triplicate.

REAL PARTY IN INTEREST

The present application was assigned to NCE Corporation, as indicated by a copy of the assignment enclosed as Appendix B.

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-20 stand rejected pursuant to an Office Action mailed March 30, 1999. Claims 1-20 are all presented for appeal. All pending claims are listed in Appendix A.

STATUS OF AMENDMENTS

A petition for reissue was filed on April 19, 1995. No amendments to the claims have been made since then.

SUMMARY OF INVENTION

The present invention relates to an apparatus for the complete incineration and filtration of hazardous waste materials and other types of discarded materials. An embodiment of the present invention comprises numerous modules that work together to incinerate waste material without producing dangerous or environmentally undesirable by-products.

The first module is a feeding system with a shredder and air injection system. The air injection system blows waste material into the next module, the first combustion chamber. The injectors blow waste and air into the first combustion chamber along a trajectory that suspends the waste material for a time sufficient to enhance incineration.

The first combustion chamber incinerates the waste material in an oxygen rich atmosphere. The injector system produces the

oxygen rich atmosphere by blowing air into the first combustion chamber in excess of the amount required for normal combustion. This chamber produces ash and exhaust, which contains gasses and particulate matter. The gasses and particulate are then delivered to a second combustion chamber.

The second combustion chamber fires the exhaust in an oxygen starved atmosphere. The oxygen starved atmosphere of the second combustion chamber is produced by a damper that restricts the air flow into the second chamber to an amount less than that required for normal combustion. The exhaust is retained in the second chamber for at least one second before being delivered to the next module, a cooling module.

STATEMENT OF ISSUES

- I. Is the Applicant attempting to reclaim, through reissue, subject matter surrender during prosecution?
- II. Is the recapture rule proper under 35 U.S.C. § 251?

GROUPING OF CLAIMS

All Claims, 1-20, can be considered as a single group with respect to the applicability of the recapture rule.

ARGUMENT

I. Is the Applicant attempting to reclaim, through reissue, subject matter surrendered during prosecution?

The Examiner rejects Claims 1-20 under the Recapture Doctrine as set forth in M.P.E.P. § 1412.02.

The Recapture Doctrine, as stated in M.P.E.P. § 1412.02, bars the patentee from acquiring, through reissue, claims that are of the same or broader scope than claims deliberately canceled in the application to obtain a patent. Courts have held that amending claims to overcome prior art can trigger the application of the Recapture Doctrine. *Mentor Corp. v. Coloplast Inc.*, 27 U.S.P.Q.2d 1521 (Fed. Cir. 1993). Additionally, the Federal Circuit recently held that under certain circumstances arguments in regards to patentability can trigger the Recapture Doctrine, even if no claims were amended or canceled. *Hester Industries, Inc. v. Stein, Inc.*, 46 U.S.P.Q.2d 1641 (Fed. Cir. 1998).

Applying the law cited above to the present reissue application, it is abundantly clear that Applicants made no deliberate decisions in prosecuting the original application to surrender the liquid filter subject matter to overcome prior art, as required for the Recapture Doctrine to apply. Furthermore, the reissue claims in this application are broader than the original patent claims in a way that does not attempt to reclaim subject matter, if any, that might possibly have been surrendered in prosecuting the original application. The file history of the original patent shows the Recapture Doctrine to be inapplicable to the claims of the present reissue application. Consequently, Applicants respectfully traverse the Examiner's rejection below.

Considering the first situation where the Recapture Doctrine can apply, it is clear that Applicants are not trying to acquire any subject matter that was explicitly canceled during prosecution.

Considering the second situation where the Recapture Doctrine can apply, Applicants are not trying to recapture subject matter that was added as a narrowing limitation to a claim to specifically overcome prior art. In Applicants' response to the Examiner's action dated June 25, 1997, Applicants pointed out that any amendment with regard to "a liquid filter for capturing said particulate matter contained in said fired exhaust and for chemically treating said fired exhaust gases to reduce the quantity of CO, NO, and SO contained in the fired exhaust" was done to be in compliance with § 112 and not as a narrowing limitation to overcome cited art. Since the application of the Recapture Doctrine to the liquid filter element requires a deliberate intention on the part of Applicants to surrender subject matter associated with the liquid filter element to overcome prior art, and since Applicants repeatedly and consistently argued that the liquid filter element was not necessary to distinguish over the prior art, there is no basis to apply the Recapture Doctrine to Claim 1 and Claim 22 (now Claim 15). This argument was made in Applicant's response to Examiner's action dated June 25, 1997 and no response to this argument was made. Presumably this issue is now settled.

Considering the third situation where the Recapture Doctrine can apply, the Examiner, in the latest Official Action, relies on the holding of *Hester Industries Inc. v. Stein Inc.*, 46 U.S.P.Q.2d 1641 (Fed. Cir. 1998) to support the Recapture Doctrine. The Court, in *Hester Industries*, held that "in a proper case, a surrender can occur through arguments alone." *Hester Industries* at 1649. In determining that the case before it was "a proper case", the Federal Circuit noted that *Hester Industries* was attempting to recapture the two claim limitations which it had indicated during prosecution were the primary basis for distinguishing the broadest claim over the prior art. The Court additionally noted that *Hester Industries* had claimed that the limitations sought to be removed via reissue were both

critical and very material to patentability. Indeed, in various answers and appeal briefs, the applicants in *Hester Industries* repeatedly emphasized the two claim limitations, it later tried to recapture as the distinguishing factors over the prior art. *Hester Industries* is troubling in that it gives no guidelines on how to determine when an argument leads to the recapture doctrine. The present case is not "a proper case" to hold that the Recapture Doctrine applies since Applicants never argued that the liquid filter element was the primary basis for overcoming prior art.

The Examiner points to several examples where Applicants argued that the liquid filter element was not shown in the prior art. The Examiner concludes that in so doing the Recapture Doctrine now applies. This conclusion is wrong. The holding in *Hester Industries* was not that any time a patentee argued that a limitation was not disclosed, taught or suggested in the prior art that the limitation was surrendered for purposes of the Recapture Doctrine. Instead, the Court held, as discussed earlier, that surrender can occur in certain fact specific "proper cases". Applicants respectfully submit that this is not a proper case to assert the Recapture Doctrine.

The Examiner points to paper 5, page 4, filed August 15, 1991 to support the position that Applicants have surrendered the liquid filter to the Recapture Doctrine. In the cited section, Applicants are pointing out that the prior art fails to disclose a liquid filter. On page 5 of paper 5 the Applicants conclude:

Applicants have shown that each of the references relied on omit critical features of Applicants' invention. Moreover, no reference teaches or suggests the use of first and second combustion chambers where the first combustion chamber incinerates waste material "in an oxygen rich atmosphere" and the second combustion chamber incinerates the fired exhaust in an "oxygen starved atmosphere." In addition, no reference teaches or suggests a liquid filter that both captures particulate matter

and treats the exhaust "to reduce the quantity of CO, NO and SO."

(emphasis added). The Examiner is latching on to the word critical to make this case look the same as *Hester Industries*. However, *Hester Industries* never held that "critical" was a magic word that automatically invoked the recapture rule. Although the Applicant used the words critical features, unlike *Hester Industries*, the applicants are arguing that the liquid filter, one of several limitations the applicants have argued were not found in the art made of record by the Examiner, was not needed for patentability. In *Hester Industries*, the patentee made numerous arguments that two limitations were critical for patentability and then attempted to remove both limitations through reissue.

The Examiner further points to Applicants' Appeal Brief, filed on October 26, 1992 to support the contention that Applicants surrendered the liquid filter to the Recapture Doctrine. Again, Applicants were simply arguing that there were several reasons why the prior art failed to disclose, teach, or suggest all the limitations of the present application. As Applicants stated on Page 4 of the Appeal Brief, "the Houser patent does not show, teach, or suggest (1) an oxygen enriched first combustion chamber, (2) and oxygen starved second combustion chamber, or (3) a liquid filter as claimed by Applicants." (emphasis added) Applicants then independently argued on Pages 4-8 the differences between each of these elements and Houser, Hadley, and Kent. In concluding the Appeal Brief, on Page 8, Applicants stated:

The three references cited as prior art do not show, teach, or suggest using air injectors to inject air and waste material into an oxygen rich first combustion chamber, delivering exhaust to an oxygen starved second combustion chamber, or using a liquid filter to remove the specified chemicals . . . as expressly claimed by Applicants.

(emphasis added). Applicants did nothing more than argue the numerous distinctions between their invention and the prior art, which they are entitled to do. Each limitation was argued as an independent reason that could overcome the art of record. Applicants did not in any way express the liquid filter element in such a manner that the Applicants made it the primary basis for distinguishing over the prior art. It is simply argued as one of several distinctions. Therefore, the Recapture Doctrine is wholly inapplicable in the present situation and the Examiner's rejection should be withdrawn.

Indeed, in seeking the original patent, Applicants repeatedly and consistently argued that the recited combustion chambers and the order of their operation were important aspects of the invention and entirely sufficient to define over the prior art. The mere fact that Applicants also pointed out that the prior art failed to teach or suggest the recited filter element, with its ability to reduce the quantity of CO, NO, SO, HCL, or SO₂, does not in any way amount to an admission that the recited filter element was necessary, by itself, to overcome the prior art. This certainly is not a proper case where the Applicants have made "unmistakable assertions . . . to the Patent Office . . . [that] can give rise to a surrender for purposes of the Recapture Doctrine." (emphasis added, *Hester Industries* at 1649).

Therefore, in view of the governing law and the file history of the original patent, Applicants are not trying to recapture any matter that was canceled during prosecution. Nor were any narrowing limitations made to the liquid filter element to overcome the prior art, as demonstrated in the above discussion of Paper No. 12. Finally, under the recent decision of *Hester Industries Inc. v. Stein, Inc.*, no comments made during the prosecution of the application rise to the extent of those shown in *Hester* and do not trigger the surrender of subject matter. Therefore, Applicants did not surrender the subject matter of the liquid filter element under the Recapture Doctrine as it

applies to amendments made to claims during prosecution For all of the reasons discussed above, Applicants respectfully request reconsideration and the allowance of Claims 1-20.

II. Is the recapture rule proper under 35 U.S.C. § 251?

Finally, the Examiner's rationale also runs contrary to the intent of 35 U.S.C. § 251, which allows for the reissue of defective patents. Under 35 U.S.C. § 251, "[w]henver any patent is, through errors without deceptive intention, deemed wholly or partly inoperative or invalid... by reason of the patentee claiming more or less than he had a right to claim in the patent" a patent shall be reissued. The most common asserted "error" is failure to appreciate the full scope of the invention during prosecution. This has been generally held acceptable to satisfy the error requirements. *Hester Industries*, 142 F.3d at 1480-1481. In those cases, the prosecution history will most likely have examples of limitation, being argues as not in the prior art. If, for example, a patentee attempted to remove a limitation "c" from a claim, and the patentee had argued at any time during prosecution that claim limitations a, b and c where not in the prior art and thus patentable over the prior art, under the Examiner's reasoning this would always invoke the Recapture Doctrine and prevent reissue. This stance eviscerates the meaning of 35 U.S.C. § 251. *Hester Industries* needs to be limited to those cases where there is an undisputable surrender of subject, such as an attempt to recapture all the limitations claimed as critical during prosecution.


CONCLUSION

Based on the foregoing arguments, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending claims.

Although Applicants believe that no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayment to Deposit Account No. 02-0384 of Baker & Botts, L.L.P.

Respectfully submitted,

BAKER & BOTTS, L.L.P.
Attorneys for Applicants


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Date: August 30, 1999

APPENDIX A

1. A waste disposal apparatus comprising:
a first combustion chamber for incinerating waste material in an oxygen rich atmosphere to produce ash and exhaust containing gasses and particulate matter;
an injector for blowing air into said first combustion chamber in excess of the amount required for normal combustion;
a second combustion chamber for firing said exhaust containing gasses and particulate matter in an oxygen starved atmosphere; and
a damper for restricting air flow into said second combustion chamber to an amount less than that required for normal combustion.
2. The apparatus of claim 1 wherein said injector also blows waste material into said first combustion chamber.
3. The apparatus of claim 2 wherein said injector blows said air and waste material into said first combustion chamber along a trajectory that suspends said waste material for a time sufficient to enhance incineration of said waste material.
4. The apparatus of claim 1 wherein said first combustion chamber further comprises means for agitating said waste material and said ash in said first combustion chamber.
5. The apparatus of claim 1 wherein said exhaust is retained in said second combustion chamber for at least one second.
6. The apparatus of claim 5 further comprising means for controlling the direction of exhaust flowing through said second combustion chamber.
7. The apparatus of claim 1 further comprising a cooling chamber for mixing outside air with said fired exhaust discharged from said second combustion chamber.
8. The apparatus of claim 7 further comprising an electrostatic filter for removing particles from said fired exhaust.
9. The apparatus of claim 7 further comprising a reducing catalyst for treating said exhaust to neutralize or remove by-products of combustion contained in said fired exhaust.

10. The apparatus of claim 7 further comprising an oxidizing catalyst for converting CO contained in said fired exhaust to CO₂.

11. The apparatus of claim 19 wherein said liquid filter comprises water and either urea or ammonia.

12. The apparatus of claim 19 wherein said liquid filter comprises a thickening or jelling agent for increasing the viscosity of said liquid.

13. The apparatus of claim 19 wherein said liquid filter includes means for agitating said liquid and for mixing said fired exhaust with said liquid.

14. The apparatus of claim 19 further comprising means for cooling said filtered exhaust flowing from said liquid filter.

15. A waste disposal system comprising:
means for reducing said waste material and for feeding said reduced material to said first combustion means;
a first combustion means for incinerating said reduced waste material in an oxygen rich atmosphere to produce an exhaust containing gasses and particulate matter;
means for flowing air into said first combustion means in an amount greater than that required for normal combustion;
a second combustion means for firing said exhaust containing gasses and particulate matter in an oxygen starved atmosphere;
means for controlling air flowing into said second combustion means to an amount less than that required for normal combustion;
means for removing particles from said first exhaust;
first means for treating said fired exhaust to remove oxides of nitrogen; and
second means for treating said fired exhaust to accelerate oxidizing reactions in said fired exhaust.

16. The waste disposal system of claim 15 wherein each of said means further comprises means for sensing each of said functions.

17. The waste disposal system of claim 16 wherein each of said sensing means is connected to a means for monitoring and controlling each of said functions.

18. The apparatus of claim 19 further comprising a means for mixing said captured particulate matter in said liquid filter to produce a foam or froth.

19. The waste disposal apparatus of claim 1 further comprising a liquid filter for capturing said particulate matter contained in said fired exhaust and for chemically treating said fired exhaust gasses to reduce the quantity of CO, NO and SO contained in said fired exhaust.

20. The waste disposal system of claim 15 further comprising a liquid filter means for capturing said particulate matter contained in said fired exhaust and for chemically treating said fired exhaust gasses to reduce CO, NO, HCL and SO₂ contained in said fired exhaust.

017220.0115

PATENT APPLICATION
08/425,766

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APPENDIX B

Following this sheet are photocopies of the assignment recordation indicating the present application is assigned to NCE.

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

NCE Concepts, Ltd.
2150 Chennault
Carrollton, TX 75006

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

Execution Date: April 7, 1997

2. Name and address of receiving party(ies):

Name: NCE Corporation

Internal Address:

Street Address: 2150 Chennault

City: Carrollton State: Texas ZIP: 75006

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s).

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

08/440,992 filed May 15, 1995
08/425,766 filed April 19, 1995
08/639,289 filed April 25, 1996

B. Patent No.(s)

5,203,267
5,305,697
5,425,316

issued April 20, 1993
issued April 26, 1994
issued June 20, 1995

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Frederic M. Wilf

Internal Address:

Street Address: Saul, Ewing, Remick & Saul
1055 Westlakes Drive, Suite 150

City: Berwyn State: PA ZIP: 19312-2410

6. Total number of applications and patents involved: 6

7. Total fee (37 CFR 3.41)..... \$240.00

- ☒ Enclosed
☐ Authorized to be charged to deposit account

8. Deposit account number:

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Frederic M. Wilf
Name of Person Signing

Frederic M. Wilf
Signature

April 15, 1997
Date
5

Total number of pages including cover sheet, attachments and document:

ASSIGNMENT OF PATENTS

WHEREAS, NCE CONCEPTS, LTD., a Texas limited partnership, having an address of 2150 Chennault, Carrollton, Texas 75006 (hereafter "Assignor"), is the owner of the patents and patent applications in the United States of America and for countries foreign to the United States of America listed in Exhibit A attached hereto and the inventions described and claimed therein; and

WHEREAS, NCE CORPORATION, a Delaware corporation, having a principal office address of 2150 Chennault, Carrollton, Texas 75006 (hereafter "Assignee"), desires to acquire all right, title, and interest in and to the patents and patent applications, together with the inventions described therein.

NOW THEREFORE, pursuant to the Contribution and Exchange Agreement, and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor does hereby sell, assign, transfer and set over to Assignee, all its right, title and interest in and to:

(1) the patents and patent applications listed in Exhibit A and the inventions described and claimed therein, as well as all continuations, divisions, and continuations-in-part of said patents and patent applications, and all reissues and extensions of the term of any patent issuing on said patents or patent applications, and to all international priority rights relating thereto throughout the world, the same to be held and enjoyed by Assignee for its own use and benefit, and for the use and benefit of its successors, assigns, or legal representatives, to the end of the term or terms for which such patents are or may be granted or reissued, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made;

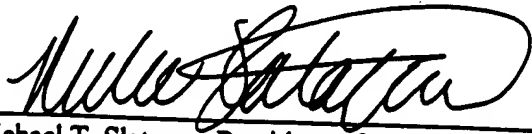
(2) all claims for damages by reason of past infringement of such patents, with the right to sue for and collect the same for its own use and benefit, and for the use and benefit of its successors, assigns, or other legal representatives.

Assignor also assigns to Assignee, all right, title and interest in and to the inventions disclosed in said applications throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said inventions in Assignee's own name throughout the world including all rights to publish cautionary notices reserving ownership of said inventions and all rights to register said inventions in appropriate registries; and

Assignor further agrees that it will, at any time upon request, execute and deliver any and all lawful papers that may be necessary or desirable to perfect the title to such patents and patent applications to Assignee and its successors, assigns, or legal representatives.

IN WITNESS WHEREOF, the parties and their duly authorized representatives have caused this Assignment of Patents to be executed on the dates and in the capacities shown below.

NCE CONCEPTS, LTD., a Texas limited partnership

By: 
Michael T. Slataper, President of MTS Capital, Inc.,
the sole General Partner of NCE Concepts, Ltd.

Date: 3/28/97

NCE CORPORATION

By: 

Its: President

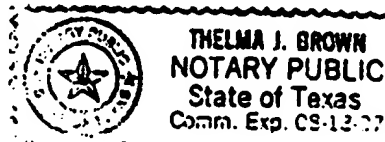
Date: 4/7/97

STATE OF _____

COUNTY OF _____

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On this 28 day of MARCH, 1997, personally appeared before me Michael T. Slataper, to me known and known to me to be the President of MTS Capital, Inc., the sole General Partner of NCE Concepts, Ltd., the Assignor above named, and acknowledged that he executed the foregoing assignment on behalf of said Assignor and pursuant to authority duly received.



Thelma J. Brown
Notary Public in and for
the State of TEXAS

Printed Notary Name

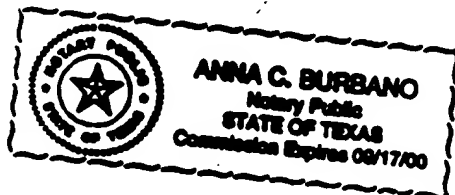
My Commission Expires: _____

STATE OF TEXAS

COUNTY OF DALLAS

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§

On this 7th day of APRIL, 1997, personally appeared before me E.M. Smith, to me known and known to me to be the President of NCE Corporation, Assignee above named, and acknowledged that he executed the foregoing assignment on behalf of said Assignee and pursuant to authority duly received.



Anna C. Burbano
Notary Public in and for
the State of TEXAS

Printed Notary Name
Anna C. Burbano

My Commission Expires: 9.17.2000

EXHIBIT A

United States Patents

<u>Patent No.</u>	<u>Issue Date</u>	<u>Title</u>
5,203,267	April 20, 1993	METHOD AND APPARATUS FOR DISPOSING OF WASTE MATERIAL
5,305,697	April 26, 1994	METHOD AND APPARATUS FOR DISPOSING OF WASTE MATERIAL
5,425,316	June 20, 1995	METHOD AND APPARATUS FOR CONTROLLING A WASTE DISPOSAL SYSTEM

United States Patent Applications

<u>Serial No.</u>	<u>Filing Date</u>	<u>Title</u>
08/440,992	May 15, 1995	METHOD AND APPARATUS FOR CONTROLLING A WASTE DISPOSAL SYSTEM
08/425,766	April 19, 1995	METHOD AND APPARATUS FOR DISPOSING OF WASTE MATERIAL
08/639,288	April 25, 1996	METHOD AND APPARATUS FOR DISPOSING OF WASTE MATERIAL

Foreign Patents

<u>Patent No.</u>	<u>Issue Date</u>	<u>Country</u>	<u>Title</u>
112,641	April 16, 1993	Taiwan	APPARATUS FOR DISPOSING OF WASTE MATERIAL